

Week 10: Capstone Project Part 3.3

Objective

Master technical prompt engineering by understanding how specific terms and structures affect image generation results.

Part 1: Technical Specifications Impact

Pair 1: Portrait

Base Prompt: portrait of a young woman with blonde hair



Bing Image Creator

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Technical Prompt: portrait of a young woman with blonde hair, shot on Hasselblad H6D, 80mm lens at f/2.8, natural window light, Kodak Portra 400 film simulation, shallow depth of field



Bing Image Creator

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Analysis:

- Technical prompt yielded sharper textures and a cinematic aesthetic.
- Lighting appeared more natural with soft shadows.
- Background had bokeh-like softness and was more dynamic.

Pair 2: Cityscape

Base Prompt: modern city street at night



Bing Image Creator

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Technical Prompt: modern city street at night, Sony A7R IV, 24mm f/1.4 lens, long exposure, high contrast, neon reflections on wet pavement, 8K resolution



Bing Image Creator

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Analysis:

- Enhanced realism through neon reflections and wet surfaces.
- Technical terms directed the lighting and camera perspective.
- Result was visually rich and looked professionally composed.

Part 2: Lighting Experiments

Prompts:

1. elderly man portrait, natural light
2. elderly man portrait, split lighting setup, black background, studio strobe with 36-inch octabox
3. elderly man portrait, golden hour sunlight through window, dust particles visible, cinematic, Arri Alexa



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Analysis:

- Natural light provided soft shadows.
- Split lighting created dramatic contrast.
- Golden hour prompt added cinematic ambiance and backlighting.

Part 3: Style and Medium Control

Prompts:

1. Photography: mountain landscape, morning mist, shot on Phase One IQ4, 150mm lens, HDR bracketing
2. Digital Art: mountain landscape, morning mist, digital art, 4K concept art, matte painting style, atmospheric perspective

3. Traditional Medium: mountain landscape, morning mist, oil painting on canvas, impressionist style, visible brushstrokes



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Analysis:

- Photography was realistic with clear lens effects.
- Digital Art had vibrant color and stylized fog.
- Oil Painting used brushstroke textures and soft contours.

Observations

Effective Technical Terms:

- Kodak Portra 400
- Phase One IQ4, Hasselblad
- HDR bracketing
- Golden hour, octabox
- f/2.8, 8K resolution

Unexpected Results:

- Some specific camera models were abstracted.
- Lighting modifiers had strong influence on mood.
- Background control varied by style.

Conclusion

Best Practices:

- Use camera/lens/film terms for realism.
- Style-based cues define genre and tone.
- Combine light, resolution, and modifiers for pro results.

Recommended Prompt Structure:

[subject], [camera], [lens], [light type], [film/look], [style], [resolution]